untitled-1

February 27, 2025

```
[1]: pip install pandas
```

```
Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: pandas in
c:\users\advik\appdata\roaming\python\python312\site-packages (2.2.3)
Requirement already satisfied: numpy>=1.26.0 in
c:\users\advik\appdata\roaming\python\python312\site-packages (from pandas)
(2.2.2)
Requirement already satisfied: python-dateutil>=2.8.2 in
c:\users\advik\appdata\roaming\python\python312\site-packages (from pandas)
(2.9.0.post0)
Requirement already satisfied: pytz>=2020.1 in
c:\users\advik\appdata\roaming\python\python312\site-packages (from pandas)
(2024.2)
Requirement already satisfied: tzdata>=2022.7 in
c:\users\advik\appdata\roaming\python\python312\site-packages (from pandas)
(2025.1)
Requirement already satisfied: six>=1.5 in
c:\users\advik\appdata\roaming\python\python312\site-packages (from python-
dateutil>=2.8.2->pandas) (1.16.0)
Note: you may need to restart the kernel to use updated packages.

[notice] A new release of pip is available: 25.0 -> 25.0.1
[notice] To update, run: python.exe -m pip install --upgrade pip
```

```python
[2]: import pandas as pd
```

```python
[3]: Dict={
        "name":
     ↪['Alice','Bob','Aradhya','Ananya','Pragya','Manshi','shikha','Aastha','isha','Advik'],
        "course":
     ↪['BBA','BCA','LLB','MBA','MCA','BTECH','BCOM','MCOM','MSC','MTECH'],
        "age":[25,22,15,16,17,14,18,19,20,21],
        "subject":['maths','english','python','operating␣
     ↪system','c++','java','problem solving','history','social␣
     ↪science','computer'],
        "grade":['A','B','C','D','E','F','G','H','I','J'],
```

```
        }
```

```
[4]:  df=pd.DataFrame(Dict)
```

```
[5]:  df.head()
```

```
[5]:        name course  age            subject grade
      0    Alice    BBA   25              maths     A
      1      Bob    BCA   22            english     B
      2  Aradhya    LLB   15             python     C
      3   Ananya    MBA   16   operating system     D
      4   Pragya    MCA   17                c++     E
```

```
[6]:  df.tail()
```

```
[6]:        name course  age            subject grade
      5   Manshi  BTECH   14               java     F
      6   shikha   BCOM   18    problem solving     G
      7   Aastha   MCOM   19            history     H
      8     isha    MSC   20     social science     I
      9    Advik  MTECH   21           computer     J
```

```
[7]:  df.dtypes
```

```
[7]:  name       object
      course     object
      age         int64
      subject    object
      grade      object
      dtype: object
```

```
[8]:  df.info
```

```
[8]:  <bound method DataFrame.info of       name course  age            subject grade
      0    Alice    BBA   25              maths     A
      1      Bob    BCA   22            english     B
      2  Aradhya    LLB   15             python     C
      3   Ananya    MBA   16   operating system     D
      4   Pragya    MCA   17                c++     E
      5   Manshi  BTECH   14               java     F
      6   shikha   BCOM   18    problem solving     G
      7   Aastha   MCOM   19            history     H
      8     isha    MSC   20     social science     I
      9    Advik  MTECH   21           computer     J>
```

```
[9]:  df.shape
```

```
[9]: (10, 5)
```

```
[10]: df.describe()
```

```
[10]:              age
      count  10.00000
      mean   18.70000
      std     3.40098
      min    14.00000
      25%    16.25000
      50%    18.50000
      75%    20.75000
      max    25.00000
```

```
[12]: df.isnull
```

```
[12]: <bound method DataFrame.isnull of        name course  age             subject grade
      0    Alice    BBA   25               maths     A
      1      Bob    BCA   22             english     B
      2  Aradhya    LLB   15              python     C
      3   Ananya    MBA   16    operating system     D
      4   Pragya    MCA   17                 c++     E
      5   Manshi  BTECH   14                java     F
      6   shikha   BCOM   18     problem solving     G
      7   Aastha   MCOM   19             history     H
      8     isha    MSC   20      social science     I
      9    Advik  MTECH   21            computer     J>
```

```
[13]: df.columns
```

```
[13]: Index(['name', 'course', 'age', 'subject', 'grade'], dtype='object')
```

```
[14]: df.index
```

```
[14]: RangeIndex(start=0, stop=10, step=1)
```